

Comments to the author:

Unfortunately, in contrast to what the authors claim in their response document, many alterations, corrections and comments that I indicated were not taken into consideration; therefore, these alterations, corrections and comments are repeated below and also a few new ones are given. I urge the authors to be more careful in their next revision.

Response: Thank for reviewer's suggestions. It is sorry to make a huge mistake to miss some errors to correct in the previous version. Therefore, in this round, we have made careful revisions based on editor's suggestions. In addition, some repeated errors especially in the reference format have been also corrected. The detailed revisions are as follows:

Alterations, Corrections and Comments for the Main text:

Comment 1: Line 9: Replace "Energy conservation" by "Energy Conservation".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 2: Line 96: Replace "the rapid changes" by "rapid changes".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 3: Line 174: Replace "All of the trace" by "All trace".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 4: Line 179: Replace "the remained" by "the remaining".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 5: Line 182: Replace "theoriginal" by "the original".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 6: Line 206: Replace "the i sample" by "the ith sample".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 7: Line 228: The unit should be indicated for InHR.

Response: Thank for reviewer's suggestions. The unit has been added in the revised version.

Comment 8: Line 243: Replace "concentrations of" by "average concentrations (\pm standard deviation) of".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 9: Line 267: Replace "of trace elements" by "of the trace elements".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 10: Line 269: Replace "Cu, Co," by "The Cu, Co,

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 11: Line 340: Replace "and deweathered" by "and the deweathered".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 12: Lines 363-364: Replace "both of V and Ni showed the higher" by "both V and Ni showed higher".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 13: Line 367: Replace "of trace elements" by "of the trace elements".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 14: Line 376: Replace "Table S4-S6" by "Tables S4-S6".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 15: Line 400: Replace "showed the higher" by "showed higher".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 16: Line 405: Replace "from metallurgical" by "from the metallurgical".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 17: Line 420: Replace "displayed the gradual" by "displayed gradual".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 18: Line 432: Replace "found Fe" by "found that Fe".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 19: Line 442: Replace "to trace elements suffered from" by "to the trace elements showed".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 20: Line 451: Replace "have been upgraded" by "were implemented".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 21: Line 460: Replace "showed slight" by "showed a slight".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 22: Line 479: Replace "original element levels" by "the original element levels".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 23: Lines 494 and 496: Replace "decrease ratios" by "decreased ratios".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 24: Line 498: Replace "decrease ratios of HQ" by "decreased ratios of the HQ".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 25: Line 499: Replace "much less than" by "lower than".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 26: Line 520: Replace "were drawn as" by "were as".

Response: Thank for reviewer's suggestions. We have corrected the error.

Pages 21-26, Reference list:

Comment 27: - for authors with more than 1 initial, there should be a space between two subsequent initials; for example, in line 565 replace "A.I." by "A. I.";

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 28: - abbreviated journal names (and correct abbreviated journal names) should be used; see corrections below.

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 29: Lines 615 and 791: Replace "Int. J. Env. Res. Pub. He." by "Int. J. Environ. Res. Public Health".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 30: Line 628: Replace "Res.,18" by "Res., 18".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 31: Line 706: Replace "Air Qual. Atmos. Heal." by "Air Qual. Atmos. Health".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 32: Line 713: Replace "Interna. J." by "Intern. J.".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 33: Line 721: The reference starting with "Oldani" should start on a new line.

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 34: Lines 734 and 789: Replace "Environ. Interna." by "Environ. Int.".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 35: Line 752: Replace "China 38" by "China, 38".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 36: Line 755: Replace "Food and Chemical Toxicology 46" by "Food Chem. Toxicol.,

46"

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 37: Page 28, caption of Figure 2: Replace "The bar and black line" by "The bars and black lines".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 38: Page 29, caption of Figure 3: Replace "The bar and black line" by "The bars and black lines".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 39: Page 30, caption of Figure 4: Replace "The point and shaded area" by "The points and shaded areas".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 40: Page 31, caption of Figure 5: Replace "of original" by "of the original" in lines 1 and 2; furthermore, replace "The bar and black line" by "The bars and black lines".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 41: Page 33, caption of Figure 7: It should be indicated what the data in the figure represent; are they mean values? If so, replace "Deweathered concentrations" by "Deweathered mean concentrations".

Response: Thank for reviewer's suggestions. We have replaced "Deweathered concentrations" by "Deweathered mean concentrations".

Comment 42: Page 34, caption of Figure 8: Replace "of elements in" by "of the elements in",

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 43: Pages 35-39, Tables 1, 2, and 3: Several numeric data are given with too many significant figures; 2 significant figures suffice and 3 can be used when the first significant figure is "1"; for example, in Table 1 for V, replace "3.98±3.57" by "4.0±3.6".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 44: Page 36, heading of Table 2: It should be indicated in the heading what the unit is for the numeric data; incidentally, the unit cannot be "1"; could it be fraction of 1?

Response: Thank for reviewer's suggestions. The health risk value is unitless and it is an index. We have reviewed many previous studies and also found they were unitless.

Comment 45: Page 38, heading of Table 3: It should be indicated in the heading what the unit is for the numeric data; incidentally, the unit cannot be "1"; could it be fraction of 1?

Response: Thank for reviewer's suggestions. The health risk value is unitless and it is an index. We have reviewed many previous studies and also found they were unitless.

Alterations, Corrections and Comments for the Supplement:

Comment 46: Page 1, for affiliation "c": Replace "Energy conservation " by "Energy Conservation".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 47: Page 2: I found no reference to this section in the Main text, whereas such reference is needed.

Response: Thank for reviewer's suggestions. In the original version, many references have been placed in the section "Detailed clean air actions in China since 2013". In addition, we also cited these references in the manuscript (Line 95 in the clean version (body text)).

Comment 48: Page 8, caption of Figure S6, line 3: Replace "colorbar" by "color bar".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 49: Page 9, caption of Figure S7, line 2: Replace "of total air" by "of the total air".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 50: Page 10, caption of Figure S8, line 1: Replace "colorbar" by "color bar".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 51: Page 15, Table S3, column 1: Replace "Analytic method" by "Analytical technique"; in the footnote, replace "energy-dispersive" by "energy dispersive" and replace "X-ray fluorescence spectrometer" by "X-ray fluorescence analysis".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 52: Page 21, for "Salameh et al.": Replace "Res. 155" by "Res., 155".

Response: Thank for reviewer's suggestions. We have corrected the error.

Comment 53: Page 21, for "Visser et al.": Replace "Dressler" by "and Dressler".

Response: Thank for reviewer's suggestions. We have corrected the error.